

Blissymbols in Practice

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Introduction

At this very late stage in the game I am tearing my hair out! I have thought and written - but discarded - countless ideas and words on Bliss from many different angles but have still not been able to put my finger on what I need to say. There seem to be so many 'angles' on Bliss - so much that is fascinating and highly complex, so many things that are already well known by this group, so not worth mentioning - yet still unresolved - that it ends up that one 'cannot see the wood for the trees'. Then I thought that maybe putting together this paper is a metaphor for what BCI is faced with - there is so much to consider and to be done that can be hard to identify and focus on priorities.

The given heading 'Bliss as a language' is another problem. One could write dozens of interesting (well, to Bliss lovers, anyway) books about Bliss as a language - but still be no nearer to finding answers to the deceptively simple questions set for discussion at this Think Tank. I find it difficult to consider 'Bliss as a language' separately from 'teaching and learning' and from 'communicating'. What **really** matters is outcomes for people who use Bliss. I have tried to consult a few people who use Bliss.

I've concluded that focusing in too closely on the structure of the Bliss system itself, and possible refinements of the system, can be a kind of elegant and seductive honeytrap that may divert us at times away from other key issues. Do the answers to our Think Tank questions lie within the system or outside it in the real world? Most of the issues we need to address, and therefore perhaps the solutions, are not primarily linguistic (or even technological) but seem largely political, strategic, social, economic/financial or practical.

What is a Language?

There seems little point here in trying to define too closely what a language is or isn't, or to match up aspects of Bliss with aspects of natural languages. There are just too many different frames of reference, and too many different definitions to make that a meaningful exercise. All the various excitingly disputed hotspots of linguistic theory can be yet another (this time academic) honeytrap from which it is hard to re-emerge...

Modern western linguists have tended to reduce 'language' to formal syntactic rules. According to Chomskian linguistics, Bliss would probably not be classified as a human language at all because it lacks native speakers and complex syntactic structures. It can be discouraging to study the angels on a pinhead of linguistics only to discover that most of the rich communication skills demonstrated by our non-speaking students are somehow 'disqualified' as non-linguistic before we've even started, and relegated to some 'other' area of study. (For that reason, I am quite interested in looking at some perhaps slightly 'off the wall' theories of language and thought, that seek to incorporate non-verbal aspects of communication as well as verbal (See Appendix 1 for an outline of theories of Dan Moonhawk Alford and Robert K. Logan), as these are so important to people with communication disabilities.)

As an artificial or constructed language, Bliss is clearly very different from other natural languages. Bliss has not evolved naturally as part of a culture; its syntax and symbols have not been socially defined, it has no 'native speakers', parents do not teach it to their children. It has no natural evolution - the process by which natural spoken languages incorporate new vocabulary, shed or change words and grammatical forms, develop new idioms etc. Instead it needs to be taught and learned, and new vocabulary items mainly have to be invented by 'experts' and disseminated actively by design (rather than through usage). People who use

Bliss to communicate are not really a 'community' of speakers in the normal sense of the term.

'Bliss as a language' is thus riddled by contradictions and complex asymmetries. Languages evolve by themselves - but Bliss has to be managed. Speakers of Bliss as an expressive language (output) are essentially second language learners, with the spoken language of their environment as their first or native language but for input (reception) only - but they have to process and use both languages at once. Bliss users generally communicate bi- or multi-modally, utilizing non-verbal signals, gestures (maybe signs), speech attempts, graphic symbols, and maybe orthography too. The pattern of interaction between speaking partners and Bliss users is different from that between ordinary speakers, with the speaking partner usually being more dominant (These conditions are common to users of all/any symbolic AAC systems, not just Bliss.)

Nonetheless Bliss possesses its own semantics and syntax and hence qualifies as a language according to criteria set by classical linguists. It fulfils basic level dictionary definitions of 'language'.

As we know, the main characteristic of Bliss that distinguishes it from simpler picture sets and that backs up its claim to be a language, is the capacity to segment Bliss words into graphical and semantic units of meaning and the capacity for such segments (and/or whole Blisswords) to be combined and re-combined in different ways to form new and different words and/or parts of speech that are clearly related semantically and structurally (and that should be more or less intelligible to another person with knowledge of the underlying logic of the language, without being explicitly taught). Furthermore, this characteristic means that the vocabulary is potentially expandable on an open-ended basis.

We tend to use this as a bit of a mantra, and as if it was self-evident that this makes Bliss more powerful than picture-based symbol sets and brings about better outcomes for users than picture-based symbol sets do. IS it true? **Are people who use Bliss able to harness the potential of this linguistic capability and to experience success in using it for communication and or representation?**

Similarly, we believe that knowledge of the Bliss language can help users to develop their language abilities overall and also their ability to acquire literacy (i.e. better than other symbol systems can). **But can this ever sensibly be a primary aim for non-speaking people whose first and most urgent need is by definition for effective basic communication?**

Thirdly we hope that a new generation of teachers and therapists can be convinced that Bliss offers advantages for their students. **But can we offer clear evidence (or at least attractive and up to date 'descriptive' promotional material) backed up by a supportive package of training and useful resources?**

Let's look again at the three points above.

1. People who use Bliss are possibly *not* necessarily able to harness and use Bliss's power and complexity successfully

In practice, although the important potential of Bliss is always there, and many of us have come across exceptionally good Bliss users, it is actually rare for individual users to be able to access and implement more than a small fraction of 'bliss power'. Many users are limited to short ('key word' type) utterances and never use word order, grammar symbols or Bliss strategies effectively. This may be for a number of reasons. The most obvious are within the user him/herself and within the user's immediate context. These would include limitations imposed by the underlying pattern of the person's neurological impairment - visual/auditory perceptual or processing difficulties, learning difficulties, physical accessing difficulties, or by

their immediate psycho-social situation - lack of motivation (learned passivity, needs anticipated by others, and so on).

There are of course also barriers outside the symbol system itself, such as limited time, knowledge and skills or low expectations on the part of teachers, therapists, or helpers. Another major barrier is lack of access to necessary and appropriate symbol resources.

Can users access the syntactic power of Bliss?

Research and clinical experience indicates that the limited output of symbol users may be at least partly intrinsic to the bi-modal nature of their language situation (Smith & Grove, 1999). One hypothesis is that symbol speakers reprocess/recode messages from one mode into another losing a lot in the 'translation', as it were, possibly due to memory/sequencing limitations. Or if/when symbol users do not do cross-modal processing, and stay intramodally within the visual-graphic symbol system, then they have no sentence role models to follow and emulate, and can have only limited experience of acquiring language structure by producing it (since grammar forms can only be selected as sequential modifiers, not 'produced') and so their own 'output as input' is self-limiting. This falls foul of the tenet of language acquisition that construction of a rule-governed hierarchically structured language system needs data available to it that are perceivable, producible and segmentable. In other words, the segmentability of Bliss is a necessary but not sufficient condition for syntactic development; simply providing recombinable elements does not mean that they can be produced or that they will be recombined and used. So although there is in Bliss (unlike in PCS) a potential pathway towards structured language use, it is a path that does not go all the way. This 'producibility' factor may be one of the reasons why a voice output system (with any of several possible symbol interfaces) can sometimes help users to achieve syntactic competence that low tech symbol users fail to achieve.

Soto (1999) and others propose that users of graphic symbols are subject to a modality-specific factor affecting the structure of symbol output tending to limit symbol utterances to short (one or two symbols) sentences, restricting sentence structures mainly to simple declarative forms, and missing out morphosyntactic structures (verbs, articles etc.) even when these are available on the user's communication display.

This seems to apply to users of all graphic systems, i.e. to Bliss users equally with PCS users; at a syntactic level there may more in common between users of these two systems than there are differences. If there are differences across users in what is eventually achieved, the difference may be not within the systems or in the users, but in the fact that Bliss trained teachers/therapists will think to provide and teach linguistic strategies whereas others might not. I certainly often provide a 'not', and an 'opposite' symbol along with 'action' and 'past/future' symbols in PCS communication books that I create for users. Kenny (a user mentioned later who swapped from Bliss to PCS) continues to use 'action' with his PCS vocabulary. We have also seen that users of the Minspeak MAP LLL competently use the 'opposite' strategy introduced by Jones who was influenced by Bliss.

Experts' Bliss and Users' Bliss

Focussing too closely on 'the system' - the constructed language as conceived of by Mr. Bliss, and as developed and shaped by BCI and the International Symbol Panel - (rather than on the user) can widen the gap between what is possible in Bliss and what is actually achieved by users.

For example, if professionals are producing symbol materials, or transcribing a story or other text for publication they will generally produce Bliss symbol sentences that follow the structure of their native spoken language (or a slightly simplified and/or Blissified version of that). The form of symbols used will be ones that display the appropriate 'part of speech'/number agreement/tense/voice indicator on the top. The vocabulary used will either be the exactly relevant meaning (taken from the whole Blissymbol corpus of 3,000 or so symbols) or a carefully constructed neologism using the Bliss Fundamental Rules, or a

combine marked with 'combine' indicators before and after. Symbol writers may have a philosophical perspective and will aim to exploit to the full the semantic richness of symbol combine possibilities. They may use alphabet letters and numbers and pointer arrows to modify symbols to clarify meaning. They will use space and punctuation in the notation of the symbols, to make it clear where ideas and sentences start and finish. In the end result, we can perceive a uniquely elegant language form. I suppose we believe that in showing Bliss off to its best advantage we are providing an effective model that will help users to develop good sentence structures themselves. But these symbol writers have a much wider range of tools and linguistic flexibilities available to them than does a disabled person who uses Bliss for communication.

2. What about users whose key need is for effective basic communication? (Advanced language use and literacy may be a long way down the line)

Far from providing a useful model, that 'perfect' written Bliss language, introduced 'top down' may be too far away from where a Bliss user is at, productively, to make any sense to them (cf Vygotsky's zone of proximal development). It is introducing yet another different language mode for users to juggle with.

Realistically, most users can select symbols only from the vocabulary they have been given, which may be restricted to a couple of hundred or less. They cannot create neologisms, even if they know the Bliss Fundamental Rules (unlikely) as the Key symbols and elements are generally not available to them in that form.

In terms of syntax, the overall output is more likely to be a 'string' of key information carrying words (ICW), rather than an ordered sentence. The difficulty of learners of graphic symbols in moving from single symbol utterances to multi symbol phrases (that normally occurs effortlessly in speaking children between 2 and 3 years of age) is well documented (Smith (1996 and others). However even highly competent users, especially if they have severe accessing difficulties, may make a conscious decision to keep messages short and telegraphic. For the same reason, they may count on linguistic redundancy and omit all indicators or use temporal modifying symbol words only if needed/prompted for intelligibility. Some users who are cognitively able to be involved in selecting their own communication vocabulary - but who because of physical accessing restrictions can only access a small number - will deliberately select the largest bank of nouns (or ICW) that they can squeeze into the space available while deliberately choosing to exclude grammatical function words and indicators (and even verbs) even when they have the cognitive and receptive language ability to understand and use such forms. This is a pragmatic decision - their need is to communicate effectively not to form elegantly grammatical phrases - other people, ie communication partners, with fully functioning spoken language, can supply the 'grammar bits'.

Assymetries in Receiving and Reading back connected Blissymbols

Many who use Bliss expressively have very limited receptive Bliss ability. Bliss users do not necessarily understand others' expressive use of Blissymbols, without the support of a speaking intermediary. If they sit beside another Bliss user as he or she talks by pointing out symbols, they may not necessarily be able to follow what that other Bliss user is saying. Possible reasons are:

- Physical and/or visual difficulties in seeing what is being pointed to
- Unfamiliarity with the particular symbols used, and/or with their location on a chart, book, or screen that has a different layout to their own.
- Use of unfamiliar or unconventional word order/grammar

This takes us quite a long way away from 'Bliss as a language', whether in syntactic terms, or in terms of social community. If two Bliss users cannot understand each other, it is not even an effective shared code.

Many non-speaking children and/or adults who use Blissymbols for expressive communication are effectively speakers but not readers of the language. They may not be able to read (ie. decode and extract the meaning) a written string of 'connected' Blissymbols, especially if these contain more sophisticated grammar than they use. Many cannot even necessarily recognise and read back with understanding a string of symbols that *they themselves* just generated, once it is written down in a left to right sequence, presumably from lack of experience or because the symbols look different once removed from their setting in an array.

Many will not make sense of 'grammar markers' located above written symbols because they themselves, if they understand and use them at all (many do not), would indicate them as discrete symbols either before or after the symbol that they relate to. Many will have difficulties learning and retaining new symbols.

The limitations and asymmetries described above are not aimed to undermine or discount the value of the output that users *do* achieve, which as we know can still be effective and elegant. They are mentioned to indicate that in practice, as opposed to in theory; it is by no means self-evident that Bliss really can be considered as a 'full' language for all users.

Pressures on Bliss as a Language

Looking at Bliss from some linguistic angles, we could suggest that it resembles a 'pidgin' language. (This also fits with Mr. Bliss's view of Bliss as a simply structured universal interlanguage.) Pidgins are linguistically simple, and display characteristics which are – broadly - also true of Bliss, for example:

- Short uncomplicated sentence structures (no embedded clauses, etc)
- Separate words to indicate tense, usually preceding or immediately following the verb

Pidgins develop where there is prolonged, regular contact between two or more different language communities, a need to communicate between them, and an absence of (or absence of widespread proficiency in) a widely accessible common language. In a way, these conditions do apply to people with disabilities with a minority, specialised means of expression. But Pidgins are famed, if not for their elegance, for their creativity and the rapidity with which they can incorporate new concepts and disseminate new vocabulary, whereas although individual Bliss speakers may be creative, there is no effective means for them to share their creativity with others in their language community. The 'top down' method of creating new symbol vocabulary is slow and cumbersome.

There is a powerful and relentless push towards extinction of all minority languages by the dominant languages (including not just spoken & written language but the dominating influence of instant digital communication, www).

I do fear that Bliss really is an endangered language¹. Not because of the small number of speakers (even very small language communities survive if each new generation of children are taught the language as their first language) but because children are not learning it. This is the real threat to Bliss.

What action should BCI take...?

¹ Bliss is not alone. It is commonly agreed by linguists and anthropologists that the majority of languages now spoken in the world will disappear within our lifetime.

What action should BCI take...?

Constantly refining Bliss itself will not save it, but is 'fiddling while Rome burns'. Making Bliss ever more complicated is unlikely to help it to survive, and more likely to speed its demise.

...to ensure that the linguistic features developed within the language of Blissymbolics accommodate the range of applications for which the language is used?

When asked what she might hope for from BCI – of which she has a little awareness – Bliss user Mary said 'I need new words'.

New Symbols

If possible BCI should aim to develop specific new symbols in response to need, and not waste time on big 'sets' of which more than half the words will never be needed or used. Develop a priority rating system whereby requests for new symbols fast-tracked whereas (*maybe that's already done? – I am out of touch*)

I asked Mary what she thought of various recent new symbols. Her approval rating for new symbols seemed to embody the following scale of priorities: (my paraphrasing)

1. It's a key meaning that I have been needing / waiting for, and that I need/want to use. (I don't really care what it looks like, so long as I know where to find it and can access it easily.)
2. Graphically & conceptually, it's elegant *and concise* (preferably incorporating a maximum of 2 main key symbols).

What she does not like are long multi-element symbols (I don't like them either – they won't fit in the squares and are a huge nuisance in board construction). She couldn't explain, other than saying 'long', but even after careful explanation of the symbol rationales, which she does understand, her performance on identifying and remembering longer symbols is relatively poor when tested.

What action should BCI take...?

Trying to 'protect' Bliss by restricting access to it through commercial or legal strategies, and circumscribing how it is used, are unlikely to help it to survive, rather these approaches may hasten its extinction.

...to ensure that the development of the language of Blissymbolics takes full advantage of the technological capabilities of the 21st century?

While I believe that technology is merely a tool for users, not an end in itself, I think that removing barriers so that Bliss can move forward in step with modern technology is essential. There needs to be

- a Unicode Bliss font so that a Bliss version of any written text is quick and easy to produce, in any circumstances
- easy access to Bliss symbols in appropriate digital formats, for developers and users

I leave it to others better informed and qualified than me to discuss complex technological development issues in detail, and I look forward to hearing about this at the Think Tank. As a working therapist in AAC assessment and service provision, however, the basic issue is how to implement Bliss with existing voice output communication aid technology and 'writing' software effectively. This means an easy-to-use and not overly expensive library of Blissymbols² available for each of the commonly used software applications and voice output

² including the newest symbols and with a mechanism for supplying batches of further new symbols as they come out.

communication aids – BoardMaker (done–hurrah!), Widgit (under way -and may open the door also to use in The Grid & Clicker), Mind Express (done), DynaVox (?), Prentke Romich (?) etc. – and future new technology coming on to the market (?)

There needs to be ongoing dialogue with the communication aid and software companies to persuade them to undertake this work cooperatively, as it will probably have a very small market and therefore little if any financial return for them. Like Mats, I can only assume that companies will be unlikely to cooperate if it is difficult and expensive for them, and more likely if it is easy and inexpensive for them.

However, just making Bliss symbols available in appropriate digital formats is probably not enough. We know that it is unrealistic to expect busy and perhaps inexperienced families or staff to create individualised Bliss vocabularies from scratch and that they need to be able to buy 'off the shelf' a starter package (that, hopefully, can then be customised). With the recent availability of Bliss symbols in BoardMaker and perhaps, by 2008, in Widgit software, it should be possible to create a 'starter' Bliss Vocabulary (or more than one?) for a Windows-based dynamic screen VOCA used in the UK and the North America (and perhaps for systems already used in the Nordic countries and Europe, that I'm not familiar with, if they want such a thing).

Peter Zein who is a high level user of both a Bliss symbol book and the Bliss Minspeak WordStrategy (BMW) application on a Liberator VOCA, stressed the need for us to work with the communication aid companies to ensure that they are aware of Bliss and the needs of Bliss users. This applies both to continuing to support existing Bliss/VOCA users and to catering for the needs of Bliss users new to technology. Unfortunately, even when it has been done once, this kind of work requires maintenance and updating. After Shirley's massively impressive work on the original BMW, we are now faced with starting all over again to fight for the continuing support of Bliss Minspeak on newer generations of devices. (Peter would like to trade his old Liberator for the new PRI device the Echo 14 - but Bliss Minspeak may not be supported on it...?)

This highlights the link between the Think Tank question ***'What action should BCI take to ensure that the language of Blissymbolics as used by persons who are nonspeaking reaches its highest potential?...'*** and technology issues.

Peter is a fast and fluent independent communicator, using BMW, that's about as high as Bliss potential gets. Also, one of the great aims and highest achievements for nonspeaking people is to succeed with literacy. Peter is at last as an adult making good progress with reading and spelling and he is convinced that his use of BMW has helped greatly. However it is not possible to separate the Bliss aspect of this (metalinguistic awareness at many levels, splitting words down into smaller segments etc.) from the technology aspect of it (speech feedback, words appearing on screen in response to Bliss input etc.) Promoting Bliss *with technology* as a tool for literacy is one of the most worthwhile aims to pursue.

Teaching and Learning Bliss

In the 1970s and early 1980s, Bliss revolutionised and led the field, indeed as we know Shirley McNaughton was a key leader at the very birth of 'AAC'. Bliss was the first and only graphic symbol system and training courses to introduce and educate professionals and families in Bliss transmitted alongside the system itself an important body of new knowledge about AAC in general – seating and positioning, access methods including complex coding systems, practicalities of creating communication displays, motivating users, teaching and learning strategies and so on - there was no separation between the two and there was no other source of AAC training and support. The early Bliss courses used to last several days!

I say this to recognise and celebrate not only the vision and ground breaking pioneering work of Shirley and colleagues in developing and teaching Blissymbolics itself, but also to highlight the role the Bliss community has played in introducing and establishing good practice in AAC around the world, far beyond the boundaries of Blissymbolics, over the years. This pioneering continues, as evidenced by the top class specialised, person-centred teaching that Shirley and colleagues carry out in the literacy and technology field with Bliss students at Muskoka.

The quality and the continuity of teaching and support provided, alongside the person's own motivation and persistence, lies at the heart of success for Bliss users. A good teacher in a positive and supportive environment can succeed with the very minimum of tools and materials, while poor or inappropriate teaching will fail our students, however fancy and expensive and sophisticated the materials and technology used. (It was certainly not technology that made Bliss successful in the first place, nor are most of the remaining 'star' users of Bliss necessarily high tech users.)

3. How can we convince and support teachers and therapists?

First we have to convince a professional that they should try Bliss with their pupil. Research evidence is thin on the ground and many teachers don't read research anyway. Ideally an impressive Bliss user role model demonstrating skills that they are already aware their pupil does not have, could do this job. But they have to weigh up, even in a special school setting where there is arguably more time for specialist work, how sensible it is to think of juggling with perhaps two or even several different AAC systems on the go at once, in one classroom, especially in terms of coordinating preparation of materials.

Once convinced, how can new professionals learn? Or do we expect them just to teach themselves 'on the job' (as we all did)? How realistic is this in today's climate? There are not enough teacher role models around for today's new professionals to observe and copy. Somehow – we need 'kits' containing video material, perhaps with additional teaching notes and student work books, and perhaps 'starter packs' of Bliss symbol communication boards.

Bliss and Inclusion

Teachers and therapists in inclusive school settings today face many challenges and pressures. If you work in a school you know – there is just **no time** for anything other than the relentless march of the daily timetable (and if you want to take a child out of the schedule, for specialist work, there are **no staff** to cover for this).

Slowly gaining ground over the past 20 years has been the principle that a symbol-based 'visual environment' is supportive in helping all pupils to access information on an equal basis and to help particular pupils with additional support needs to access the curriculum generally, and to progress with language and literacy areas in particular. Many classes contain speakers of say Urdu, or Polish, as well as children with autistic spectrum disorders, learning difficulties, or dyslexia; the practical and equalising value of a pictorial environment can be recognised in this context. But in practice this visual environment is based on PCS (or Widgit) symbols, and training and preparation of resources are geared accordingly. Before they would consider adopting or supporting Bliss, as an additional language, teachers would certainly need to be strongly convinced that it had something extra to offer, over and above other systems, in terms of helping a specific pupil to meet the targets and attain the outcomes that identified for him or her. Additionally, they would naturally expect to be provided with resources to support them in undertaking a Bliss programme.

Teachers do have support for individual pupils in the class but this is usually classroom assistants/support for learning auxiliaries, who are not given the training or the authority or the resource of development time needed to introduce a new and complex specialism such as Bliss. To be honest, unless exceptional circumstances arose, I would never recommend Bliss for children in mainstream school as I do not believe it can be done (not well, anyway).

So where does that leave us? Working on Bliss at home or in private therapy sessions? Is that likely to work?

Targets and Outcomes

In education, targets and outcomes for pupils are, understandably, focussed primarily on educational progress. Reading is of course a key area. I believe that young children in Primary school learn to read better along with their classmates 'the normal way' (and reading is being taught better now than it used to be) rather than through any kind of special programme involving symbols (which would be an extra modality intervening between spoken and written language). If they need to catch up later, that might be the time to bring in symbol language work.

Language and communication targets have sometimes been relegated to the 'language' strand of the curriculum and sometimes reduced to pointless splinter skills, but there is some evidence in Scotland at least that the narrow curricular focus of the past two decades is on its way out, and the tides are turning back towards pupil centred learning. The new Curriculum for Excellence draws very broad areas within which targets and outcomes are to be set: *Successful Learners* (including literacy, communication, and ICT aims), *Confident Individuals* (including social and independence aims), *Responsible Citizens* (including participation) and *Effective Contributors* (including social interaction aims). There must be room in there to identify appropriate targets for children with complex communication needs relevant targets for AAC users. A list of suggested language and communication targets graded at different levels (mmm – is that an AAC curriculum for younger children??) could be a best-seller.

For adults, the 'capability approach' (Burchardt, 2006) is a helpful model in the disabilities equalities area, stressing broad equality of opportunity rather than narrow 'one size fits all' outcomes. In the area of communication, it's not about individual targets and indicators aiming to measure how many symbols an individual can learn; how many symbols they can string together; whether their sentences are well-ordered or not, and so on. Meaningful aims and outcome measures would try to look at the overall experience of the person with disabilities in acquiring and implementing communication skills that are important to them, whether this be personal interaction, making new friends, social or civic participation, independence, learning new skills, literacy acquisition, writing, access to information - or all of these - and whether this has improved.

Hard Economics

We have all seen and worked with enough effective and successful users to be convinced that the power of Bliss is real and that aiming to achieve that potential is a worthwhile goal to pursue. But at the same time somehow the user base of Bliss continues to shrink and we see what appear to be 'lesser' systems claim ever increasing proportions of 'the market' (ie. of users).

Introduction of the term 'market' sums up one of the key issues. In today's world there are pressures from (a) commercial companies and (b) education and health systems obliged to meet cost-effectiveness targets. Augmentative communication has become in some senses somewhat more of a product than a process and products have to be packaged and marketed, bought and sold, and delivered. Rightly or wrongly, Bliss has never completely made that transition, remaining at the level of idea/ideal, principles and rules, etc. In itself that is not a bad thing, purest of motives and all that, but the result is that the responsibility for 'distributing' Bliss and transferring knowledge, training and skills has remained in the hands of a few knowledgeable, skilled and committed experts rather than having become 'transferable' from generation to generation of professionals, through education, products and materials.

I don't like the idea of recommending a commercial route for Bliss, but I was struck by something said to me by one of the Directors of a now extremely successful commercial

company, Inclusive Technology Ltd. He said that throughout his career as a teacher at a special school he had always been totally committed to helping children with complex special needs (his specialisms were use of ICT for control and communication and he has taught Bliss) and as a hardworking hands-on teacher he despised all commercial enterprises as exploitative. However, when he left teaching, disillusioned by aspects of 'inclusion at all costs', and joined IT Ltd. he gradually realized that he was actually able to have a much greater impact and to help far more children, more effectively, by sharing his experience and expertise widely through exhibitions, training, demonstrations, software development, publications etc. It was only the commercial framework/mechanism that made this possible.

What actions can BCI take?

Let Go?

I suppose I am suggesting that one possible mechanism for ensuring that Bliss experience, expertise and knowledge survives and is disseminated, is for it to be 'packaged' to the best of BCI's ability and to be marketed and distributed through commercial networks, like other AAC materials from other sources, such as BoardMaker topic packs, DVDs showing teaching ideas and methods, books etc. Currently, supporting materials like dictionaries, teaching manuals, etc. are distributed by BCI - but not effectively enough. By that I mean (a) people don't know they exist and don't know where to go to get them, and (b) they apparently don't make enough money to allow for maintenance, updating etc.

Some of the older products might inevitably have to be dropped. New resources such as symbol vocabularies for use with a variety of software would be better sold on alongside the software they run in. Obviously certain checks balances and safeguards would have to be built-in, to partnerships with commercial companies, but at the same time, a certain degree of freedom is essential, otherwise the whole enterprise (and Bliss along with it) might be suffocated.

While respecting utterly the best motives, dedication and hard work of everyone involved, I believe that the evidence today suggests that BCI cannot obtain enough funds to survive and grow itself while also supporting Bliss and Bliss users and promoting Bliss products worldwide and by trying to keep control of everything and by selling directly. (The same almost certainly applies to Affiliates, many of whom are functioning on voluntary or 'retiree' time and/or members whose time is limited and who are under pressure from their circumstances/clients/employers to diversify equitably into different areas of AAC, not just Bliss.)

BCI – Image, Products and Projects

BCI is perhaps a difficult organization for outsiders to understand. Could it be streamlined?

Try to keep things simpler- BCI might be advised to be seen to do fewer things but do them well. Concentrate on -

- a) making the basic vocabulary (including new symbols) quickly and easily available to those that need it (which would include resolving a much simpler and more direct relationship with new technology developers), and
- b) publicizing the system to those that are new to it

Try to make a clear separation between 'internal' development work on the system (for extended/advanced support of existing users, hands-on work with individual users, study and research) and 'external' work on public relations and marketing, and dissemination and support of new symbol vocabulary.

(Would it be possible/helpful to divide BCI into two sections, to make this clearer?)

If we want Bliss to be the system that people choose, certain basic conditions have to be in place. There has to be clear information about Bliss available as freely as there is for other

systems. There have to be up to date resources that compete in terms of attractiveness with those of other systems.

In this respect I think that recent changes and developments on the BCI website have been very successful and that the new Bliss Connection newsletter and the new training modules Bliss 101, 201), are very much on the right track.

And there has to be some kind of positive and upbeat 'advertising' that commends Bliss to potential users - videos on YouTube or DVDs of successful users, case stories in widely read popular publications etc. In other words – 'marketing'. Use of the Internet and mobilisation of world-wide BCI Affiliates to ensure that this is accessible across many different languages and cultures will be important.

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APPENDIX 1

Dan Moonhawk Alford considered a 4-part model of language that would cover child language and animal languages together with human languages, giving equal value to non-verbal components:

- Alpha language - right hemisphere, global not linear, conversation, idioms, 'chunks of meaning' (not words)
- Beta language (what Chomsky calls language) – left hemisphere, beta-rhythm brain waves, formal 'stranger talk', formal linguistic operations
- Delta language – delta-rhythm brainwaves, brain-stem, oldest evolutionary brain, 'reptilian brain', posture, movement, gestures, facial expressions
- Theta language – theta level brain waves, limbic system, processing emotions in tunes and body language

This theoretical framework would accommodate the rich multi-modal mixture that is augmentative communication.

Robert Logan (2004/5) in a dynamic systems approach (playfully called 'The Grand Unification Theory of Human Thought') proposes that there is an evolutionary chain of languages. He outlines 3 protolanguages based on percepts (rather than concepts): (1) manual praxic articulation (practical tools); (2) social emotional intelligence or the language of social interaction; (3) pre-verbal communication (facial and eye gestures, mime, gestures, hand signs, prosodic vocalization). These three non-verbal languages are where the roots of early technology (agriculture, mechanics) and fine arts (painting, sculpture, music, dance) lie and they are also primitive forms of communication and information processing - the basic functions that define a language. They are described as "the cognitive laboratory in which the skills of generativity, representation and communication developed." (ie the cognitive framework of spoken language). At this point a transition from percept to abstract concept based thinking occurs, in a context also causing at the same time the emergence of speech (4). This discontinuity is accounted for by chaos theory, when a new level of order suddenly arises (rather than slow continuous Darwinian evolution). This new language era sees the emergence of post-verbal art forms such as song, poetry, theatre, and also forms the roots of narrative, writing, mathematics, science and computing etc. However language at this level also retains vestigial features of earlier forms of linguistic expression. Logan's 'Fifth Language' is computing (the Information Age, using ideas from chaos theory, informatics, linguistics and McLuhanist ideas about media) and he is particularly interested in computers in education. The Sixth Language is digital reality as exemplified by the Internet transforming the Information Age into the Knowledge Era.

Moonhawk Alford, D. <http://www.enformy.com/dma-4br.htm> and discussion with linguist colleagues, The 4-BrainMind Model section (scroll down) <http://www.enformy.com/alford.htm#papers5>

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Amongst the many social and political changes since the early days of Bliss instruction, which have had the effect of altering priorities in our educational and social institutions - and as a by-product of this, drastically reducing the use of Bliss, a few of the most obvious factors in the UK include the following:

- In education, the move to inclusion has led to the closure of special schools and classes, so that children with complex communication support needs find themselves in mainstream classes and/or in 'mixed' additional support for learning units. This places heavy demands on teachers, often untrained and inexperienced, who are also under other pressures from the need to deliver the curriculum, meet the needs of the other children in their group, assess pupils' progress etc.. They inevitably turn to simple and easy-to-implement approaches, with maximum support available in the form of materials and resources.
- Both education and the field of AAC have widened to include a commitment to meeting the needs of individuals with more severe and complex learning disabilities (for whom Bliss is not an appropriate communication approach/solution) and children with autistic spectrum disorders, as well as those able to use more formal and linguistic types of AAC. Demands on services are thus more diverse and provision is, arguably, spread thinner.
- A wider range of different AAC systems and approaches has become available, and awareness of these is increasing all the time, offering more options to both service providers and service users.
- Linked to the above, 'market forces' in AAC have come into play – a range of symbol and other AAC products are marketed on a commercial scale.
- Computers and voice output devices 'overtook' the field before basic knowledge and good practice in low tech AAC applications were fully established across all settings and with all client groups. Continual rapid technological change continues to push the field along - sometimes in directions it might not necessarily want to go (for example, better, cheaper, lighter, faster screen technologies have led to a domination of 'dynamic screen' based VOCAs, whereas it could be argued that static display systems would suit many users better).
- Devolution of local authority budgets to schools, contracting-out of care services from social services to voluntary agencies and private providers, and fragmentation of therapy services have isolated providers from specialist advice/support and have reduced access to 'economies of scale', for procurement of equipment and training
- Similarly, in adult services, the move from segregated group provision to individualised community provision has left individual users without specialised/experienced staff support (and staff are essentially without training options), and without access to necessary vocabulary.

We are also in the middle of a long overdue social 'sea change' that gives children, families and people with disabilities much more 'say' in choices and decisions about their own education and life style. They may not always choose what we think they should!

Three 'within Bliss' issues have also contributed to the decline of Bliss use:

- New vocabulary has been too slow to be developed and even when it has been developed it has somehow not been disseminated to users effectively.
- Lack of inexpensive and easy to use Bliss software, lack of easy access to Bliss resources in appropriate digital formats for use with new computer technologies.
- Lack of trained Bliss specialists, and difficulties experienced by the few there are to disseminate their expertise, and to promote Bliss, due to pressures from competing priorities, lack of time and funding etc.

To summarise, it is to oversimplify to say that it is competition from 'easier to learn' picture sets that has marginalised Bliss in the UK. It is really the entire 'system' that is today's inclusive education/society policy – with correspondingly devolved and therefore fragmented

and reduced budgets. It is interesting to note the contrast between the results of UK policies (based on a North American model?) and policies in other countries, notably Sweden, where there has been ongoing centralised government support for Bliss on a significant scale, allowing for continuity and levels of multidisciplinary input adequate to attain good outcomes for learners, and a steady development programme. Nonetheless, I understand there is even a decline there in the popularity of Bliss?

Leaving aside the net effect on Bliss use, of course the gradual development of a more inclusive society and inclusive schools has also brought many good and important outcomes for children. This is not the place to go into a discussion of all of these, and the situation is far from idyllic as we know, but certainly there is more recognition of AAC from teachers, policy makers and more commitment and investment from educational management (although still never nearly enough!) as non-speaking children and their needs become more 'visible'.

APPENDIX 3

Case Stories

I asked three adult users, Kenny, Mary and Peter, about the symbol systems that they are currently using and their choices and decisions.

Kenny chose to switch from Bliss to PCS in 2000. His therapist reports that at the time of a review of Kenny's communication, staff felt it was important to let him see what different options were available, to let him choose and to respect his choice. He seemed to be motivated by a 'fresh start' (affected too in complex ways by the attitudes of staff around him), and he preferred the coloured symbols of PCS to Bliss symbols. (Of course, that in itself raises all sorts of interesting other questions, like, is this actually a visual or a perceptual issue – did Kenny simply find the coloured PCS symbols easier to see and identify? A recent mini-study that we did in the CALL Centre recently showed that the pervading view of teachers of pupils with visual impairment that large black symbols on a white background are easiest for visually impaired children to perceive was quite wrong at least in the context of an array of similarly sized symbols. Coloured symbols, preferably with fairly thick black outlines, were much easier for subjects to identify and distinguish.) Kenny's therapist's responses may be of interest to some and are therefore attached below as Appendix 4.

Mary has stuck with Bliss symbols and prefers a black and white display (although her board nowadays also includes a few coloured photos and PCS symbols as well, for items that were difficult or unnecessary to Blissymbolise). She is a very fluent and effective communicator although her symbol output is restricted to strings of information carrying words (ICW) with little or no word order or grammar word support. She did not consciously choose to stick with Bliss (it was mainly the 'if it works don't try to fix it' principle that has sustained her use) and although she has little awareness in the abstract of Bliss symbols versus other symbols, she gets extremely agitated (angry!) at a personal and concrete level, at the suggestion that anyone might tamper with 'my symbols' (ie Bliss). When she was interviewed, she gave as her priority access to relevant new vocabulary. Of the latest items added, she has a few PCS and photos on her board where a picture was more efficient, but Bliss is used for more complex and abstract concepts eg. 'abuse'.

Mary and Kenny are very similar in many ways including level of function and background, so how come Mary kept her Bliss symbols? Maybe because of ...

